

Appln. No. 10/648,896

Docket No. 304-813

Amendment

Reply to Office Action dated July 14, 2004

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

- 1 1. (Currently amended) A device for determining the temperature of a flowable medium,
2 wherein said medium flows through a duct with a cross-section,
3 said device having a temperature sensor and a probe body,
4 wherein said probe body has several elongated probe sections connected to a base member,
5 wherein said probe sections extend into said duct,
6 wherein said temperature sensor is arranged on said probe body with in conductive thermal
7 contact therewith, and
8 wherein said temperature sensor is located on said base member and is outside said duct.
- 1 2. (Original) A device according to claim 1, wherein said probe sections extend through
2 said entire cross-section of said duct.
- 1 3. (Original) A device according to claim 1, wherein said probe sections are straight and
2 parallel.
- 1 4. (Original) A device according to claim 3, wherein said probe sections are equidistant to
2 one another.
- 1 5. (Original) A device according to claim 1, wherein said probe sections are rod-like.
- 1 6. (Original) A device according to claim 1, wherein said probe sections are spaced from
2 one another with free gaps, said free gaps between two adjacent of said probe sections being
3 roughly of the order of magnitude of the extension of said probe sections at right angles to a flow
4 direction of said medium.

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1 7. (Original) A device according to claim 1, wherein there is a flow cross-section for said
2 medium through said probe sections and said probe sections have an end face in said duct, wherein
3 said flow cross-section is roughly as large as the sum of said end faces of said probe sections in
4 said duct.

1 8. (Original) A device according to claim 1, wherein said probe sections extend in said
2 medium flow direction about the same as at right angles thereto.

1 9. (Original) A device according to claim 1, wherein on one side said probe body has a
2 base member from which said probe sections project and said base member only extends slightly
3 into said duct.

1 10. (Original) A device according to claim 1, wherein said probe sections are connected in
2 one piece with said base member.

1 11. (Original) A device according to claim 10, wherein said probe body of said base
2 member and said probe sections is entirely made in one piece.

12-13. (Cancelled)

1 14. (Original) A device according to claim 1, wherein said device is connected to a heater.

1 15. (Original) A device according to claim 14, wherein said heater has a heat transfer
2 member extending into said duct.

1 16. (Original) A device according to claim 14, wherein said medium has a flow direction
2 and said probe body is positioned downstream of said heater in said medium flow direction.

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1 17. (Original) A device according to claim 1, wherein said temperature sensor is
2 integrated into a heating element.

1 18. (Original) A device according to claim 1, wherein said heating element is a thick film
2 element.

1 19. (Currently amended) An arrangement of a duct with a cross-section for guiding a
2 flowable medium and a device for determining the temperature of said medium,
3 wherein said medium flows through said duct,
4 said device having a temperature sensor and a probe body,
5 wherein said probe body has several elongated probe sections connected to a base member,
6 wherein said probe sections extend into said duct,
7 wherein said temperature sensor is arranged on said probe body with in conductive thermal
8 contact therewith, and
9 wherein said temperature sensor is located on said base member and is outside said duct.

1 20. (Original) A device according to claim 19, wherein said device is connected to a
2 heater.

1 21. (Original) A device according to claim 20, wherein said heater has a heat transfer
2 member extending into said duct.